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EXAMINER
STAICOVICI, STEFAN

ART UNIT	PAPER NUMBER
1732	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/700,372	HATJASALO ET AL.	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 November 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

- on page 4, line 13, "appratus" should be changed to --apparatus--
- on page 5, line 32, "silico-ne-" should be changed to --silicone--
- on page 12, line 21, "Fig. 1" should be deleted

Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "3" (see Figure 1) and "Li_1" to "Li_6" (see Figure 2). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "thin-walled" in claims 1-2 is a relative term which renders the claim indefinite. The term "thin-walled" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The original disclosure does not provide examples of what encompasses a "thin-walled" article.

Regarding claims 1, 3-4, 8-9 and 11 the phrase "such as", and in claims 1, 4 and 8-9, the phrase "or the like", renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481

(Bd. App. 1949). In the present instance, claim 3 recites the broad recitation "surface tension regulating surfactants", and the claim also recites "especially for facilitating the demoulding/releasing of a finished article" which is the narrower statement of the range/limitation.

Claims 2 and 12 recite the limitation "the open mold" in lines 4-5 and, respectively line 3. There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2, 4, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035).

WO 98/25747 teaches the basic claimed process of forming a thin-walled article including, electrostatically spraying charged particles (electrically charged state) of an elastomeric composition (polymer based single component material) into a chamber containing an earthed (zero potential) rigid shaped former (mold), forming a coating on said former, consolidating said coating (finished product) and stripping the resulting molded article from the shaped former (see page 2, lines 14-21).

Regarding claim 1, WO 98/25747 does not teach spraying in an electric field. Miller ('035) teaches the idea of spraying an elastomeric (polymer based) composition in an electrostatic field formed between a conductive base (4) and plate (2) in order to form an elastomeric (polymer based) film that can be stripped from the forming surface (col. 1, lines 46-49). It would have been obvious for one of ordinary skill in the art at the time of the invention to use an electrostatic field as taught by Miller ('035) in the process of WO 98/25747 because, Miller ('035) specifically teaches a variety of advantages that an electric filed provides such as increased particle orientation, improved polymerization, improved matte appearance (col. 1, lines 35-44) and also because, both references teach similar processes and materials.

In regard to claims 2, 4 and 12, WO 98/25747 teaches molding a glove or a condom (three-dimensional).

Specifically regarding claim 8, WO 98/25747 teaches an "earthed" (zero potential) mold.

7. Claims 3, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998).

WO 98/25747 in view of Miller ('035) teach the basic claimed process as describe above.

Regarding claims 3 and 11, WO 98/25747 in view of Miller ('035) do not teach applying a mold release agent on the mold prior to molding. However, the use of release agents during molding is well known in the art as evidenced by Goodridge ('998) which teaches using a mold release agent (col. 6, lines 64-65) during a molding process. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold release agent as taught by

Goodridge ('998) in the process of WO 98/25747 in view of Miller ('035) because, Goodridge ('998) specifically teaches that a mold agent allows demolding as required by the process of WO 98/25747 in view of Miller ('035) and also because, all references teach similar processes and materials

In regard to claim 13, WO 98/25747 teaches molding a glove or a condom (three-dimensional).

8. Claims 6, 10, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Itoh (US Patent No. 3,976,031).

WO 98/25747 in view of Miller ('035) teach the basic claimed process as describe above.

Regarding claims 6, 10, 16 and 18, WO 98/25747 in view of Miller ('035) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of WO 98/25747 in view of Miller ('035) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process and also because, all references teach similar processes and materials.

9. Claims 7, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998) and Itoh (US Patent No. 3,976,031).

WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) teach the basic claimed process as describe above.

Regarding claim 17, WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process and also because, all references teach similar processes and materials.

In regard to claims 7 and 20, WO 98/25747 teaches varying the size of the electrostatic charge, the solids composition (hence the viscosity) and the position and speed of the mold as it travels along the spraying units in order to vary the thickness of the resulting molded article (see pages 5-6). Goodridge ('998) teaches a plurality of spray guns (44) (see Figure 3). Itoh ('031)

teaches a molding surface (2) set at different voltages forming three distinct regions (A, B and C) in order to provide control of the thickness of the resulting molded article (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process and also because, all references teach similar processes and materials.

10. Claims 5, 9 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Panandiker *et al.* (US Patent No. 4,055,550).

WO 98/25747 in view of Miller ('035) teach the basic claimed process as describe above.

Regarding claims 5, 9 and 14, WO 98/25747 in view of Miller ('035) do not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of

ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of WO 98/25747 in view of Miller ('035), because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition which is used in the electrostatic process of WO 98/25747 in view of Miller ('035). It should be noted that WO 98/25747 teaches polyurethane as a material used in the electrostatic process (see page 4).

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998) and Panandiker *et al.* (US Patent No. 4,055,550).

WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) teach the basic claimed process as describe above.

Regarding claim 15, WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998) do not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an

electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998), because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition which is used in the electrostatic process of WO 98/25747 in view of Miller ('035) and in further view of Good ridge ('998). It should be noted that WO 98/25747 teaches polyurethane as a material used in the electrostatic process (see page 4).

12. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/25747 in view of Miller (US Patent No. 2,551,035) and in further view of Panandiker *et al.* (US Patent No. 4,055,550) and Itoh (US Patent No. 3,976,031).

WO 98/25747 in view of Miller ('035) and in further view of Panandiker *et al.* ('550) teach the basic claimed process as describe above.

Regarding claim 19, WO 98/25747 in view of Miller ('035) and in further view of Panandiker *et al.* ('550) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of WO 98/25747 in view of Miller ('035) and in further view of Panandiker *et al.* ('550) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved

versatility and process control of the electrostatic coating process and also because all references teach an electrostatic spraying process.

13. Claims 1-4, 8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Patent No. 2,551,035) in view of Goodridge (US Patent No. 3,607,998).

Miller ('035) teaches the basic claimed process of spraying an elastomeric (polymer based) composition in an electrostatic field formed between a conductive base (4) and plate (2) in order to form an elastomeric (polymer based) film that can be stripped from the forming surface (col. 1, lines 46-49).

Regarding claim 1, Miller ('035) does not teach electrically charged particles. spraying in an electric field. Goodridge ('998) teaches a spraying process in which the particles are first electrically charged and then sprayed onto a molding surface which is set at a potential to attract said sprayed particles (see col. 2, lines 23). It would have been obvious for one of ordinary skill in the art at the time of the invention to electrostatically spray a composition or to electrostatically charge the particles as taught by Goodridge ('998) in the process of Miller ('035) because, Goodridge ('998) teach that a charged particle is attracted to a mold set at an opposite potential and as such known advantages result such as, increased orientation and a more uniform structure, etc. and also because both processes teach similar processes.

In regard to claim 2, Miller ('035) teaches a forming surface, hence teaching a three-dimensional molded article. Goodridge ('998) teaches a three-dimensional molded article (see Figure 1).

Specifically regarding claims 3 and 11, Goodridge ('998) teaches using a mold release agent (col. 6, lines 64-65) during a molding process. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold release agent as taught by Goodridge ('998) in the process of Miller ('035) because, Goodridge ('998) specifically teaches that a mold agent allows demolding as required by the process of Miller ('035).

Regarding claim 8, Miller ('035) teaches electrically charged supporting rollers (4). It is submitted that electrically charged supporting rollers (4) form a "mold".

In regard to claims 4, 12 and 13, Miller ('035) teaches an elastomeric material, hence teaches forming an elastic article.

14. Claims 6-7, 10, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Patent No. 2,551,035) in view of Goodridge (US Patent No. 3,607,998) and in further view of Itoh (US Patent No. 3,976,031).

Miller ('035) in view of Good ridge ('998) teach the basic claimed process as describe above.

Regarding claims 6, 10 and 16-18, Miller ('035) in view of Good ridge ('998) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of Miller ('035) in view of Good ridge ('998) because, Itoh ('031)

specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process and also because, all references teach similar processes.

In regard to claims 7 and 20, Goodridge ('998) teaches a plurality of spray guns (44) (see Figure 3). Further, Itoh ('031) teaches a molding surface (2) set at different voltages forming three distinct regions (A, B and C) in order to provide control of the thickness of the resulting molded article (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of Miller ('035) in view of Good ridge ('998) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process.

15. Claims 5, 9 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Patent No. 2,551,035) in view of Goodridge (US Patent No. 3,607,998) and in further view of Panandiker *et al.* (US Patent No. 4,055,550).

Miller ('035) in view of Good ridge ('998) teach the basic claimed process as describe above.

Regarding claims 5, 9 and 14-15, Miller ('035) in view of Good ridge ('998) do not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a

polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of Miller ('035) in view of Good ridge ('998), because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition, whereas Miller ('035) teach electrostatic spraying of elastic materials. It is submitted that polyurethane may be elastomeric.

16. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Patent No. 2,551,035) in view of Goodridge (US Patent No. 3,607,998) and in further view of Panandiker *et al.* (US Patent No. 4,055,550) and Itoh (US Patent No. 3,976,031).

Miller ('035) in view of Good ridge ('998) and in further view of Panandiker *et al.* ('550) teach the basic claimed process as describe above.

Regarding claim 19, Miller ('035) in view of Good ridge ('998) and in further view of Panandiker *et al.* ('550) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary

skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of Miller ('035) in view of Good ridge ('998) and in further view of Panandiker *et al.* ('550) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process.

17. Claims 1-4, 8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gavatin *et al.* ('513) in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998).

Gavatin *et al.* ('513) teach the basic claimed process for forming a thin walled article, having a wall thickness of 40 microns, including spraying a latex (elastomeric) composition onto a rotating former in a chamber, hence forming a coating, drying and vulcanization of the latex film (consolidation) and stripping of the coating to result in a thin walled article. However, Gavatin *et al.* ('513) do not teach spraying in an electric field. Further, Gavatin *et al.* ('513) do not teach spraying an electrically charged particle. Miller ('035) teaches the idea of spraying an elastomeric (latex) composition in an electrostatic field formed between a conductive base (4) and plate (2) in order to form an elastomeric (latex) film. Goodridge ('998) teaches a spraying process in which the particles are first electrically charged and then sprayed onto a molding surface which is set at a potential to attract said sprayed particles (see col. 2, lines 23). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to electrostatically charge the particles as taught by Goodridge ('998) and to use an electrostatic

field as taught by Miller ('035) in the process of Gavatin *et al.* ('513) because, Miller ('035) specifically teaches a variety of advantages that an electric field provides such as increased particle orientation, improved polymerization, improved matte appearance (col. 1, lines 35-44), whereas Goodridge ('998) teach that a charged particle is attracted to a mold set at an opposite potential and as such known advantages result such as, increased orientation and a more uniform structure, etc.

In regard to claim 2 Gavatin *et al.* ('513) teach a rigid shaped former and as such it is submitted that a three-dimensional article results.

Specifically regarding claims 3 and 11, Goodridge ('998) teaches using a mold release agent (col. 6, lines 64-65) during a molding process. Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold release agent as taught by Goodridge ('998) in the process of Gavatin *et al.* ('513) because, Goodridge ('998) specifically teaches that a mold agent allows demolding as required by the process of Gavatin *et al.* ('513).

Regarding claim 8, Goodridge ('998) teaches a molding surface which is electrically charged. Further, Miller ('035) teaches electrically charged supporting rollers (4). It is submitted that electrically charged supporting rollers (4) of Miller ('035) form a "mold". Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to electrostatically charge the particles as taught by Goodridge ('998) and to use an electrostatic field as taught by Miller ('035) in the process of Gavatin *et al.* ('513) because, Miller ('035) specifically teaches a variety of advantages that an electric field provides such as increased particle orientation, improved polymerization, improved matte appearance (col. 1, lines 35-44),

whereas Goodridge ('998) teach that a charged particle is attracted to a mold set at an opposite potential and as such known advantages result such as, increased orientation and a more uniform structure, etc.

In regard to claims 4, 12 and 13, Gavatin *et al.* ('513) teaches a thin-walled latex (elastic) article.

18. Claims 4 and 12-13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gavatin *et al.* (US Patent No. 2,296,513) in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998) and De Laney *et al.* (US Patent No. 2,393,298).

Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) teach the basic claimed process as described above.

Regarding claims 4 and 12-13, Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) do not specifically teach a glove or a condom. De Laney *et al.* ('298) teach spraying as an alternative method for making a rubber glove (col. 5, lines 19-22). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to manufacture a glove as taught by Laney *et al.* ('298) using the process of Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) because, De Laney *et al.* ('298) specifically teach spraying as an equivalent alternate process and also due to a variety of unclaimed parameters such as material availability, equipment availability, simplicity, cost considerations, available expertise, etc.

19. Claims 6-7, 10, 16-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gavatin *et al.* (US Patent No. 2,296,513) in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998) and Itoh (US Patent No. 3,976,031).

Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) teach the basic claimed process as describe above.

Regarding claims 6, 10 and 16-18, Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process.

In regard to claims 7 and 20, Goodridge ('998) teaches a plurality of spray guns (44) (see Figure 3). Further, Itoh ('031) teaches a molding surface (2) set at different voltages forming three distinct regions (A, B and C) in order to provide control of the thickness of the resulting molded article (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions

(blocks) set at different voltages as taught by Itoh ('031) in the process of Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process.

20. Claims 5, 9 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gavatin *et al.* (US Patent No. 2,296,513) in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998) and Panandiker *et al.* (US Patent No. 4,055,550).

Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) teach the basic claimed process as describe above.

Regarding claims 5, 9 and 14-15, Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) do not teach heating and mixing the spraying material prior to its spraying. Panandiker *et al.* ('550) teach a polyurethane based composition (col. 3, line 19) used in an electrostatic spraying process (col. 1, line 18) including, providing a first component (polyol and blocking agent) and a second component (polyisocyanate), heating each component and then mixing said components under heat in order to provide a composition to be used in an electrostatic spraying process (see col. 4, line 20 through col. 5, line 15 and Example 1). Therefore, it would have been obvious for one of ordinary skill in the art to have heated a first component and a second component and then mixed said first and second components to form an electrostatic spraying composition as taught by Panandiker *et al.* ('550) in the process of Gavatin

et al. ('513) in view of Miller ('035) and in further view of Goodridge ('998), because Panandiker *et al.* ('550) specifically teach a process of preparing a polyurethane based electrostatic composition, whereas both Gavatin *et al.* ('513) and Miller ('035) teach electrostatic spraying of elastic materials. It is submitted that polyurethane may be elastomeric.

21. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gavatin *et al.* (US Patent No. 2,296,513) in view of Miller (US Patent No. 2,551,035) and in further view of Goodridge (US Patent No. 3,607,998), Panandiker *et al.* (US Patent No. 4,055,550) and Itoh (US Patent No. 3,976,031).

Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) and Panandiker *et al.* ('550) teach the basic claimed process as describe above.

Regarding claim 19, Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) and Panandiker *et al.* ('550) do not teach a mold having at least two treatment blocks set at different voltage levels. Itoh ('031) teaches an electrostatic coating process including providing a molding surface (2) set at different voltages forming three distinct regions (A, B and C) (see Figure 4b and col. 7, lines 11-32 and 56-60). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a mold having separate regions (blocks) set at different voltages as taught by Itoh ('031) in the process of Gavatin *et al.* ('513) in view of Miller ('035) and in further view of Goodridge ('998) and Panandiker *et al.* ('550) because, Itoh ('031) specifically teaches that by controlling the voltage regions a much improved control of the thickness results and also, the thickness can be varied from area to area on the

same article (see Figure 4b), hence providing for improved versatility and process control of the electrostatic coating process.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (703) 305-0396. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM and alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh, can be reached at (703) 308-3829. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Stefan Staicovici, PhD

Stefan Staicovici

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May 6, 2002